

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

Simulating environmental effects on brown shrimp production in the northern Gulf of Mexico

**1.2. Summary description of the data:**

Brown shrimp (*Farfantepenaeus aztecus*) are a commercially important fishery species of the northern Gulf of Mexico. Young shrimp settle in estuarine salt marsh habitats during the juvenile phase of their life history, and processes that occur during their residency affect growth, survival, and recruitment of sub-adults to the fishery. We developed an agent based model that simulates the cumulative effects of temperature, salinity, and access to emergent marsh vegetation on juvenile brown shrimp growth and survival. Our model is spatially articulate, with three habitat types and three salinity zones it functions on an hourly time step to track growth and survival of shrimp super-individuals from recruitment into the shallow nursery habitats at 10 mm total length until they reach 70 mm and move into deeper bay water. We have compared our modeled shrimp production with various abundance and biomass data from fishery independent surveys. Preliminary analysis shows similarities in seasonal patterns, but annual variability in resource survey data appears higher than our modeled estimates. We are continuing to explore larval recruitment patterns and trophic interactions as possible interacting factors. Ultimately, we hope to use inter-annual variability in production estimates to reduce uncertainty in the current stock assessment model used by the US National Marine Fisheries Service.

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2011

**1.5. Actual or planned geographic coverage of the data:**

W: -95.09903, E: -94.41891, N: 29.589704, S: 29.180167  
Gulf Of Mexico

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*  
Document (digital)

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

Instrument: Meter stick, thermometer, water pump, HOBO water pressure,

Platform: NOAA vessel

Physical Collection / Fishing Gear: Bag seine, hand nets

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:****1.8.1. If data are from another observing system, please specify:****2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

Jennifer Leo

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****2.4. E-mail address:**

jennifer.leo@noaa.gov

**2.5. Phone number:**

409-766-3500

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

Jennifer Leo

**3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

No

**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):**

0

**5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Process Steps:

- After sample collection, field data were entered into an Excel spreadsheet or database file (DBF) using database manager software. A text file was created to describe these data and associated variables. Entered data were checked against the field sheets by two biologists to minimize entry errors. Samples were processed in the laboratory, sorted, specimens identified and measured, and information was entered into an Excel spreadsheet or DBF file. Files were printed out and compared against original data sheets by two biologists for data entry errors. Corrections were made at this time, the electronic file was saved, and a back-up copy made. Hard copies of the QCd files were printed and stored in the project folder along with the original field and laboratory data sheets. The electronic file was also sorted and examined by the Lab Supervisor or other project personnel in a variety of ways to look for outliers, missing data, and other potential errors. Verified data files were then saved electronically on the Galveston Laboratory server and backed-up as needed.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

Each sample was assigned a unique identification code. Field collected samples were tagged redundantly (e.g. one label inside of the collection vessel and a matching label attached to the outside of the vessel). The identifier and its associated information (e.g. date, location, habitat) was recorded on field data sheets. Once a sample arrived at the laboratory, the label remained with the sample throughout the various stages of sample processing. After data were entered into an Excel spreadsheet or similar database file, the information was printed out and compared against the field data sheets by two biologists. Corrections were made at this time and saved. The electronic file was also sorted and examined by the Lab Supervisor or other project personnel in a variety of ways to look for outliers, missing data, and other potential errors.

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

### 6.1. Does metadata comply with EDMC Data Documentation directive?

Yes

#### 6.1.1. If metadata are non-existent or non-compliant, please explain:

### 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

#### 6.2.1. If service is needed for metadata hosting, please indicate:

### 6.3. URL of metadata folder or data catalog, if known:

<https://inport.nmfs.noaa.gov/inport/item/30671>

### 6.4. Process for producing and maintaining metadata

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: <https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.pdf>

## 7. Data Access

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

### 7.1. Do these data comply with the Data Access directive?

No

#### 7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

No

#### 7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

N/A

### 7.2. Name of organization of facility providing data access:

Southeast Fisheries Science Center

**7.2.1. If data hosting service is needed, please indicate:**

No

**7.2.2. URL of data access service, if known:**

[http://www.sefsc.noaa.gov/parr/bulk\\_downloads/16967.zip](http://www.sefsc.noaa.gov/parr/bulk_downloads/16967.zip)

**7.3. Data access methods or services offered:**

The data will be available from a public web server once an access methodology has been developed.

**7.4. Approximate delay between data collection and dissemination:**

365

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

N/A

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

To Be Determined

**8.1.1. If World Data Center or Other, specify:****8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

The archival process is currently under development.

**8.2. Data storage facility prior to being sent to an archive facility (if any):**

Southeast Fisheries Science Center - Miami, FL

Location Of The Main Office Of The South East Fisheries Science Center

**8.3. Approximate delay between data collection and submission to an archive facility:**

365

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

The data resides on a secure government network requiring multi-factor authentication for network access.

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*